in preventing union. In two cases of fracture, one of which occurred during operation, owing to the presence of numerous cloacæ in the bone, sinuses were also present, and the fracture was therefore compound. The solution of corrosive sublimate was used in the proportion of 1 to 960. The iodoform was used in the form of the concentrated ethereal solution. The shaft of the bone was in each case thoroughly disinfected with both the iodoform and mercury solutions. In addition to his own cases, Dr. Keetley cites those of Bleekwenn, Stoll, and Petrowski, all of whom have used the same procedure with like good results. Stoll and Petrowski, moreover, have filled the cavities of the bones operated upon with iodoform, with uniformly favorable results. Petrowski recommends the treatment in gunshot wounds as a prophylactic against osteomyelitis, so frequent and fatal when long bones are hit. Dr. Keetley considers it now demonstrated that the medullary cavity of a long bone can be opened, scraped out, drained, and treated locally by powerful germicide drugs, and that the operation is followed by little or no pain or constitutional reaction or danger to the life of the bone—but, on the contrary, by good results.

In conclusion, the following practical observations are made:—

1. In the face of Shede's operation, as to the dangers of using iodoform too freely, and on the occasional existence of idiosyncrasy with regard to that drug, the writer would hesitate to imitate surgeons who fill the medullary cavity with it. Moreover, personal experience shows it is superfluous to do so.

2. If the shaft of a long bone cannot be thoroughly scraped out through a lateral hole, the bone may be completely divided, and yet a speedy and thorough union reckoned on. The experiments of Maas on animals proved how unnecessary is the preservation of the medulla in order to secure union of fractures. The writer's personal experience shows that the same law applies to the human subject.—*Annals of Surgery*, Jan. 1885.

OPHTHALMOLOGY AND OTOLOGY.

Ocular Affections in Locomotor Ataxia.

M. Galezowski, in *La Recueil d'Ophthalmologie* (May, June, and July, 1884), gives a clear and methodical *résumé* of the various ocular disturbances which are met in locomotor ataxia.

These affections may be manifested upon the optic nerve, upon the motor muscles, or upon the trifacial.

The alterations of the optic nerve are especially interesting from the time of their first appearance, inasmuch as they are easily confounded with the changes due to toxic emblyopia.

In locomotor ataxia visual acuteness is nearly always unequal in the two eyes. Patients may be unable longer to see green and red. On the other hand, reading at short distance is possible for a long time, while acuity of vision for distant objects is much diminished. Finally, as has been shown by M. Darier, a much stronger electric current is required to produce manifestations of light in the beginning of ataxia than in toxic amblyopia.

In the branches of the fifth pair which border upon the eye, anæsthesia, and sometimes hyperæsthesia, are observed.

The spots where anæsthesia is present rarely are acknowledged by the patient, but to be discovered must be sought for with care. Sometimes patients complain of a feeling of heaviness in the peri-orbital region and in the face, can no longer feel the contraction of the muscles of this region, and frequently use the hand to assist the motion of the part.

Hyperæsthesia is manifested by neuralgia, or by lancinating pains similar to those experienced in the lower limbs. Excavation of the optic papillæ, which resembles the changes due to glaucoma, accompanies these manifestations of pain.

These diverse affections have hitherto resisted treatment, but Galezowski, agreeing with Fournier as to the commonly syphilitic origin of the disease, advises at the beginning of the attack vigorous anti-syphilitic treatment. He advises hypodermic injections of 5 or 6 drops of a solution of cyanide of mercury of 1½ grs. to 5 drachms of distilled water. At a more advanced period, when the organism is saturated with mercury, he employs hypodermic injections of cyanide of gold and potassium, which, in some cases, have given marked success; but in others they have totally failed.—*Gazette Médicale de Paris*, December 27, 1884.

Amaurosis due to Anæsthesia of the Optic Nerve.

M. DIANOUX, in the *Bulletin de la Société Française d'Ophthalmologie*, makes some interesting observations upon this not very rare variety of blindness, though few cases have hitherto been published. The symptoms are briefly these: abrupt beginning, generally during sleep or subsequent to some violent emotion, and ushered in by a feeling of weight in the fronto-parietal region. Blindness is at first absolute, and the patient cannot distinguish night from day. The blindness attacks almost indifferently the right or left eye, in contrast to what takes place in hysterical amaurosis, which is habitually connected with hemi-anæsthesia. It usually is mono-lateral, but may affect both eyes. Once developed, it lasts indefinitely. Examination of the eye gives entirely negative results, and the ophthalmoscope reveals no indications of disease. Without any treatment, the affection may have three different conclusions: it may either be cured spontaneously, persist a long time without change, or the optic nerve gradually may pass into a condition of atrophy.

Diagnosis of anæsthesia of the optic nerve is easy; the absence of every ophthalmoscopic lesion enables all affections of the fundus of the eye to be excluded. Amblyopia due to alcoholic or nicotine poisoning never causes such extensive perversion of vision without sign of atrophy, and amauroses of cerebral origin are always accompanied by hemiplegia or hemi-anæsthesia. The prognosis of this variety of blindness is in most cases favorable, with certain reserve, however, as the graver changes sometimes occur. Moreover, treatment is important as a criterion, since in favorable cases amelioration is almost immediate.

The treatment consists in the use of cod-liver oil, iron, and quinine in appropriate doses. Uterine disturbances should be inquired after, and carefully treated. Locally strong injections of strychnia should be used; $\frac{1}{13}$ grain injected into the temple. The continued galvanic current gives the best results of all electric applications, the positive electrode being placed behind the mastoid protuberance, and the negative applied to the closed eyelids.—*L'Abeille Médicale*, Jan. 5, 1885.

Hypodermic Injection of Pilocarpin in Affections of the Labyrinth.

Prof. ADAM POLITZER, at a late meeting of the Medical Society of Vienna, recommended, as the result of several years' experience, the subcutaneous injection of the muriate of pilocarpin in the treatment of deafness due to disease of the labyrinth, in order to promote the absorption of the exudation which may be in the labyrinth through the rapid tissue change which the drug produces.